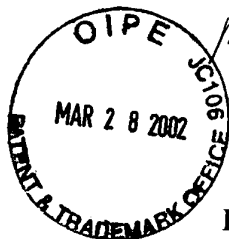


CERTIFICATE OF MAILING (37 CFR 1.8 (a)).

I hereby certify that the attached papers or fee is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to:
Assistant Commissioner for Patents, Washington, DC 20231.



March 11, 2002
(Date)

Amy L. Hamm
(Printed Name)

Amy L. Hamm
(Signature)

Atty. Docket #: 5500*42

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Michel Droux et al.

SERIAL NO: 09/486,334

FILED: July 18, 2000

ART UNIT: 1638

EXAMINER: A. Kubelik

FOR: "Method For Increasing The Content Of Sulphur
Compounds And In Particular Of Cysteine, Methoinine
And Glutathione In Plants And Plants Obtained"

Assistant Commissioner for Patents
Washington, D.C. 20231

SUBMISSION OF PROPOSED DRAWING AMENDMENTS
FOR APPROVAL BY THE EXAMINER

Sir:

Submitted herewith are copies of Figures 1-12 with proposed changes marked in red for the Examiner's approval. In the Office Action of September 10, 2002, the Examiner objected to the drawings because the legends are in French. Changes in the drawings are requested to remove French language legends and words and substitute legends and words in English. Figures 4-7 have also been amended to make the characters more legible in accordance with PTO Form 948.

Respectfully submitted,

CONNOLLY BOVE LODGE & HUTZ LLP

Date: March 11, 2002

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TECH CENTER 1600/2900

APR 01 2002

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1/12

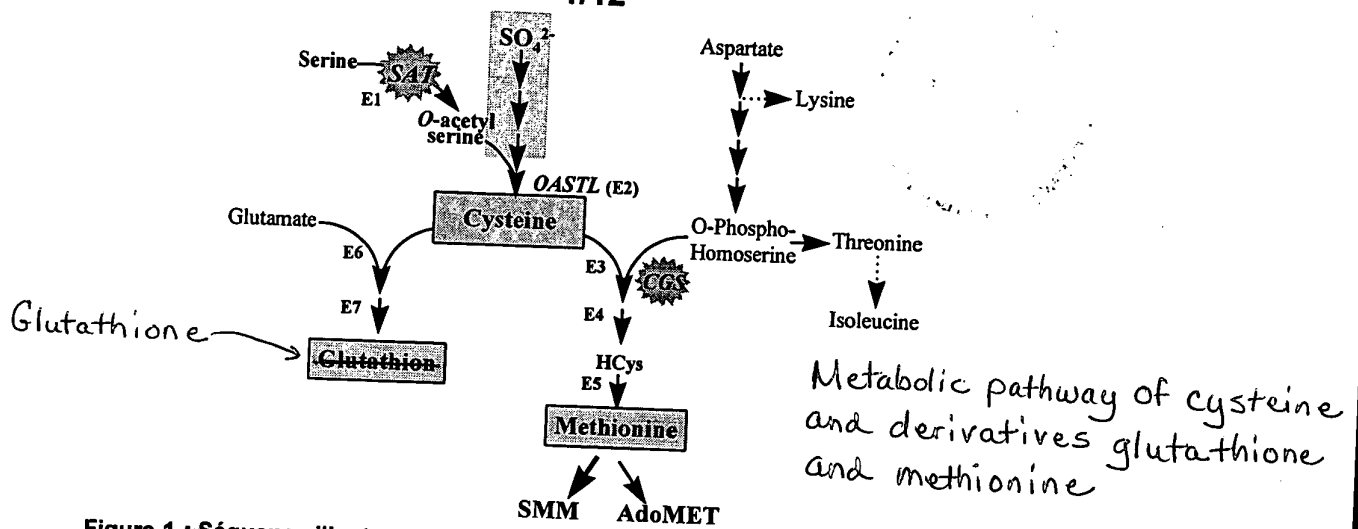
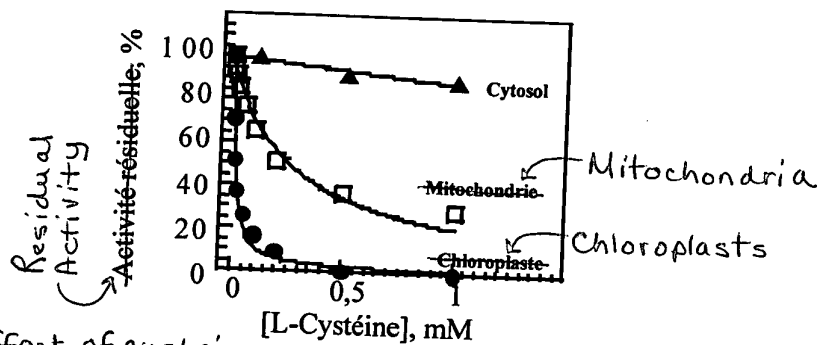


Figure 1 : Séquence illustrant la voie de synthèse de la cystéine et des dérivés soufrés (glutathion et méthionine).



Effect of cysteine on the activity of serine acetyltransferases from pea (*Pisum sativum*).
Figure 2 : Effet de la cystéine sur les activités sérine acétyltransférase de pois (*Pisum sativum*).

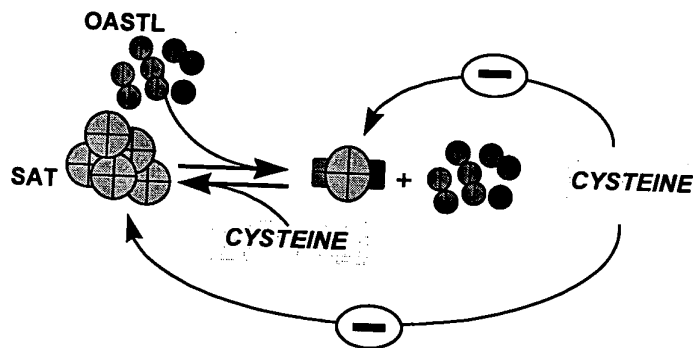


Figure 3 : Modèle de l'inhibition de la sérine acétyltransférase chloroplastique.

Model of inhibition of chloroplast serine acetyltransferase

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M | A | T | C | I | D | T | C | R | T | G | N | T | Q | D | D | 16 |
| ATG | GCA | ACA | TGC | ATA | GAC | ACA | TGC | CGA | ACC | GGT | AAT | ACC | CAA | GAC | GAT | 48 |
| D | S | R | F | C | C | I | K | N | F | F | R | P | G | F | S | 32 |
| GAT | TCC | CGG | TTC | TGT | TGC | ATC | AAG | AAT | TTC | TTT | CGA | CCC | GGT | TTC | TCT | 96 |
| V | N | R | K | I | H | H | T | Q | I | E | D | D | D | D | V | 48 |
| GTA | AAC | CGG | AAG | ATT | CAC | CAC | ACC | CAA | ATC | GAA | GAT | GAC | GAT | GAT | GTC | 144 |
| W | I | K | M | L | E | E | A | K | S | D | V | K | Q | E | P | 64 |
| TGG | ATC | AAG | ATG | CTT | GAA | GAA | GCC | AAA | TCC | GAT | GTT | AAA | CAA | GAA | CCC | 192 |
| I | L | S | N | Y | Y | Y | A | S | I | T | S | H | R | S | L | 80 |
| ATT | TTA | TCA | AAC | TAC | TAC | TAC | GCT | TCG | ATC | ACA | TCT | CAT | CGA | TCT | TTA | 240 |
| E | S | A | L | A | H | I | L | S | V | K | L | S | N | L | N | 96 |
| GAG | TCT | GCT | TTA | GCT | CAC | ATC | CTC | TCC | GTA | AAG | CTC | AGC | AAT | TTA | AAC | 288 |
| L | P | S | N | T | L | F | E | L | F | I | S | V | L | E | E | 112 |
| CTA | CCA | AGC | AAC | ACA | CTC | TTC | GAA | CTG | TTC | ATA | AGC | GTT | TTA | GAA | GAA | 336 |
| S | P | E | I | I | E | S | T | K | Q | D | L | I | A | V | K | 128 |
| AGC | CCT | GAG | ATC | ATC | GAA | TCC | ACG | AAG | CAA | GAT | CTT | ATA | GCA | GTC | AAA | 384 |
| E | R | D | P | A | C | I | S | Y | V | H | C | F | L | G | F | 144 |
| GAA | AGA | GAC | CCA | GCT | TGT | ATA | AGC | TAC | GTT | CAT | TGC | TTC | TTG | GGC | TTC | 432 |
| K | G | F | L | A | C | Q | A | H | R | I | A | H | T | L | W | 160 |
| AAA | GGC | TTC | CTC | GCT | TGT | CAA | GCT | CAT | CGA | ATA | GCT | CAT | ACC | CTC | TGG | 480 |
| K | Q | N | R | K | I | V | A | L | L | I | Q | N | R | V | S | 176 |
| AAA | CAG | AAC | AGA | AAA | ATC | GTA | GCT | TTA | TTG | ATC | CAA | AAC | AGA | GTA | TCA | 528 |
| E | S | F | A | V | D | I | H | P | G | A | K | I | G | K | G | 192 |
| GAA | TCT | TTC | GCC | GTC | GAT | ATT | CAT | CCC | GGA | GCG | AAG | ATC | GGA | AAA | GGG | 576 |
| I | L | L | D | H | A | T | G | V | V | I | G | E | T | A | V | 208 |
| ATT | CTT | TTA | GAC | CAT | GCG | ACG | GGC | GTG | GTG | ATC | GGA | GAG | ACG | GCG | GTG | 624 |
| V | G | D | N | V | S | I | L | H | G | V | T | L | G | G | T | 224 |
| GTT | GGA | GAC | AAT | GTT | TCG | ATT | CTA | CAC | GGA | GTG | ACC | TTG | GGA | GGA | ACA | 672 |
| G | K | Q | S | G | D | R | H | P | K | I | G | D | G | V | L | 240 |
| GGG | AAA | CAG | AGT | GGT | GAT | CGG | CAT | CCG | AAG | ATT | GGT | GAT | GGT | GTG | TTG | 720 |
| I | G | A | G | S | C | I | L | G | N | I | T | I | G | E | G | 256 |
| ATT | GGA | GCT | GGG | AGT | TGT | ATA | TTG | GGG | AAT | ATA | ACA | ATC | GGT | GAG | GGA | 768 |
| A | K | I | G | S | G | S | V | V | K | D | V | P | A | R | | 272 |
| GCT | AAG | ATT | GGA | TCA | GGG | TCG | GTG | GTG | GTT | AAG | GAT | GTG | CCG | GCG | CGT | 816 |
| T | T | A | V | G | N | P | A | R | L | I | G | G | K | E | N | 288 |
| ACG | ACG | GCG | GTT | GGA | AAT | CCG | GCG | AGG | TTG | ATT | GGT | GGG | AAA | GAG | AAT | 864 |
| P | R | K | H | D | K | I | P | C | L | T | M | D | Q | T | S | 304 |
| CCG | AGA | AAA | CAT | GAT | AAG | ATT | CCT | TGT | CTG | ACT | ATG | GAC | CAG | ACA | TCG | 912 |
| Y | L | T | E | W | S | D | Y | V | I | | | | | | | 314 |
| TAT | TTA | ACC | GAG | TGG | TCT | GAT | TAT | GTG | ATT | TAA | | | | | | 945 |

Figure 4: Séquence nucléotidique et peptidique du gène de l'isoforme SAT-3 (L34076) d'*A. thaliana*.

Nucleotide and protein sequences of the SAT3 (L34076) isoform from *A. thaliana*

3/12

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | M | P | P | A | G | E | L | R | H | Q | S | P | S | K | 14 |
| | | ATG | CCA | CCG | GCC | GGA | GAA | CTC | CGA | CAT | CAA | TCT | CCA | TCA | AAG | 42 |
| E | K | L | S | S | V | T | Q | S | D | E | A | E | A | A | S | 30 |
| GAG | AAA | CTA | TCT | TCC | GTT | ACC | CAA | TCC | GAT | GAA | GCA | GAA | GCA | GCG | TCA | 90 |
| A | A | I | S | A | A | A | A | D | A | E | A | A | G | L | W | 46 |
| GCA | GCG | ATA | TCT | GCG | GCA | GCT | GCA | GAT | GCG | GAA | GCT | GCC | GGA | TTA | TGG | 138 |
| T | Q | I | K | A | E | A | R | R | D | A | E | A | E | P | A | 62 |
| ACA | CAG | ATC | AAG | GCG | GAA | GCT | CGC | CGT | GAT | GCT | GAG | GCG | GAG | CCA | GCT | 186 |
| L | A | S | Y | L | Y | S | T | I | L | S | H | S | S | L | E | 78 |
| TTA | GCT | AGC | TAT | CTA | TAT | TCG | ACG | ATT | CTT | TCT | CAT | TCG | TCT | CTT | GAA | 234 |
| R | S | I | S | F | H | L | G | N | K | L | C | S | S | T | L | 94 |
| CGA | TCT | ATC | TCG | TTT | CAT | CTA | GGA | AAC | AAG | CTT | TGT | TCC | TCA | ACG | CTT | 282 |
| L | S | T | L | L | Y | D | L | F | L | N | T | F | S | S | D | 110 |
| TTA | TCC | ACA | CTT | TTA | TAC | GAT | CTG | TTC | TTA | AAC | ACT | TTT | TCC | TCC | GAT | 330 |
| P | S | L | R | N | A | T | V | A | D | L | R | A | A | R | V | 126 |
| CCT | TCT | CTT | CGT | AAC | GCC | ACC | GTC | GCA | GAT | CTA | CGC | GCT | GCT | CGT | GTT | 378 |
| R | D | P | A | C | I | S | F | S | H | C | L | L | N | Y | K | 142 |
| CGT | GAT | CCT | GCT | TGT | ATC | TCG | TTC | TCT | CAT | TGT | CTC | CTC | AAT | TAC | AAA | 426 |
| G | F | L | A | I | Q | A | H | R | V | S | H | K | L | W | T | 158 |
| GGC | TTT | TTA | GCT | ATT | CAG | GCG | CAT | CGT | GTA | TCA | CAC | AAG | CTA | TGG | ACA | 474 |
| Q | S | R | K | P | L | A | L | A | L | H | S | R | I | S | D | 174 |
| CAA | TCA | CGG | AAG | CCA | TTA | GCA | TTA | GCT | CTA | CAC | TCA | AGA | ATC | TCC | GAT | 522 |
| V | F | A | V | D | I | H | P | A | A | K | I | G | K | G | I | 190 |
| GTA | TTC | GCT | GTT | GAT | ATC | CAT | CCA | GCA | GCG | AAG | ATC | GGA | AAA | GGG | ATA | 570 |
| L | L | D | H | A | T | G | V | V | G | E | T | A | V | I | | 206 |
| CTT | CTA | GAC | CAC | GCA | ACC | GGA | GTT | GTA | GTC | GGA | GAA | ACA | GCG | GTG | ATT | 618 |
| G | N | N | V | S | I | L | H | H | V | T | L | G | G | T | G | 222 |
| GGG | AAC | AAT | GTT | TCA | ATC | CTT | CAC | CAT | GTG | ACA | CTA | GGT | GGA | ACA | GGT | 666 |
| K | A | C | G | D | R | H | P | K | I | G | D | G | C | L | I | 238 |
| AAA | GCT | TGT | GGA | GAT | AGA | CAT | CCG | AAG | ATC | GGT | GAC | GGT | TGT | TTG | ATT | 714 |
| G | A | G | A | T | I | L | G | N | V | K | I | G | A | G | A | 254 |
| GGA | GCT | GGA | GCG | ACT | ATT | CTT | GGA | AAT | GTG | AAG | ATT | GGT | GCA | GGT | GCT | 762 |
| K | V | G | A | G | S | V | V | L | I | D | V | P | C | R | G | 270 |
| AAA | GTA | GGA | GCT | GGT | TCT | GTT | GTG | CTG | ATT | GAC | GTG | CCT | TGT | CGA | GGT | 810 |
| T | A | V | G | N | P | A | R | L | V | G | G | K | E | K | P | 286 |
| ACT | GCG | GTT | GGG | AAT | CCG | GCG | AGA | CTT | GTC | GGA | GGG | AAA | GAG | AAG | CCA | 858 |
| T | I | H | D | E | E | C | P | G | E | S | M | D | H | T | S | 302 |
| ACG | ATT | CAT | GAT | GAG | GAA | TGT | CCT | GGA | GAA | TCG | ATG | GAT | CAT | ACT | TCA | 906 |
| F | I | S | E | W | S | D | Y | I | I | ... | | | | | | 312 |
| TTT | ATC | TCG | GAA | TGG | TCA | GAT | TAC | ATC | ATA | TAA | | | | | | 939 |

Figure 5: Séquence nucléotidique et peptidique du gène de l'isoforme SAT3' (U30298) d'*A. thaliana*.

Nucleotide and protein sequences of the SAT3' (U30298) isoform from *A. thaliana*

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| M | A | A | C | I | D | T | C | R | T | G | K | P | Q | I | 15 |
| ATG | GCT | GCG | TGC | ATC | GAC | ACC | TGC | CGC | ACT | GGT | AAA | CCC | CAG | ATT | 45 |
| S | P | R | D | S | S | K | H | H | D | D | E | S | G | F | 30 |
| TCT | CCT | CGC | GAT | TCT | TCT | AAA | CAC | CAC | GAC | GAT | GAA | TCT | GGC | TTT | 90 |
| R | Y | M | N | Y | F | R | Y | P | D | R | S | S | F | N | 45 |
| CGT | TAC | ATG | AAC | TAC | TTC | CGT | TAT | CCT | GAT | CGA | TCT | TCC | TTC | AAT | 135 |
| G | T | Q | T | K | T | L | H | T | R | P | L | L | E | D | 60 |
| GGA | ACC | CAG | ACC | AAA | ACC | CTC | CAT | ACT | CGT | CCT | TTG | CTT | GAA | GAT | 180 |
| L | D | R | D | A | E | V | D | D | V | W | A | K | I | R | 75 |
| CTC | GAT | CGC | GAC | GCT | GAA | GTC | GAT | GAT | GTT | TGG | GCC | AAA | ATC | CGA | 225 |
| E | E | A | K | S | D | I | A | K | E | P | I | V | S | A | 90 |
| GAA | GAG | GCT | AAA | TCT | GAT | ATC | GCC | AAA | GAA | CCT | ATT | GTT | TCC | GCT | 270 |
| Y | Y | H | A | S | I | V | S | Q | R | S | L | E | A | A | 105 |
| TAT | TAT | CAC | GCT | TCG | ATT | GTT | TCT | CAG | CGT | TCG | TTG | GAA | GCT | GCG | 315 |
| L | A | N | T | L | S | V | K | L | S | N | L | N | L | P | 120 |
| TTG | GCG | AAT | ACT | TTA | TCT | GTT | AAA | CTC | AGC | AAT | TTG | AAT | CTT | CCA | 360 |
| S | N | T | L | F | D | L | F | S | G | V | L | Q | G | N | 135 |
| AGC | AAC | ACG | CTT | TTC | GAT | TTG | TTC | TCT | GGT | GTT | CTT | CAA | GGA | AAC | 405 |
| P | D | I | V | E | S | V | K | L | D | L | L | A | V | K | 150 |
| CCA | GAT | ATT | GTT | GAA | TCT | GTC | AAG | CTA | GAT | CTT | TTA | GCT | GTT | AAG | 450 |
| E | R | D | P | A | C | I | S | Y | V | H | C | F | L | H | 165 |
| GAG | AGA | GAT | CCT | GCT | TGT | ATA | AGC | TAC | GTT | CAT | TGT | TTC | CTT | CAC | 495 |
| F | K | G | F | L | A | C | Q | A | H | R | I | A | H | E | 180 |
| TTT | AAA | GGC | TTC | CTC | GCT | TGT | CAA | GCG | CAT | CGT | ATT | GCT | CAT | GAG | 540 |
| L | W | T | Q | D | R | K | I | L | A | L | L | I | Q | N | 195 |
| CTT | TGG | ACT | CAG | GAC | AGA | AAA | ATC | CTA | GCT | TTG | ATC | CAG | AAC | | 585 |
| R | V | S | E | A | F | A | V | D | F | H | P | G | A | K | 210 |
| AGA | GTC | TCT | GAA | GCC | TTC | GCT | GTT | GAT | TTC | CAC | CCT | GGA | GCT | AAA | 630 |
| I | G | T | G | I | L | L | D | H | A | T | A | I | V | I | 225 |
| ATC | GGT | ACC | GGG | ATT | TTG | CTA | GAC | CAT | GCT | ACG | GCT | ATT | GTG | ATC | 675 |
| G | E | T | A | V | V | G | N | N | V | S | I | L | H | N | 240 |
| GGT | GAG | ACG | GCG | GTT | GTG | GGG | AAC | AAT | GTT | TCG | ATT | CTC | CAT | AAC | 720 |
| V | T | L | G | G | T | G | K | Q | C | G | D | R | H | P | 255 |
| GTT | ACG | CTT | GGA | GGA | ACG | GGG | AAA | CAG | TGT | GGA | GAT | AGG | CAC | CCG | 765 |
| K | I | G | D | G | V | L | I | G | A | G | T | C | I | L | 270 |
| AAG | ATT | GGC | GAT | GGG | GTT | TTG | ATT | GGA | GCT | GGG | ACT | TGT | ATT | TTG | 810 |
| G | N | I | T | I | G | E | G | A | K | I | G | A | G | S | 285 |
| GGG | AAT | ATC | ACG | ATT | GGT | GAA | GGA | GCT | AAG | ATT | GGT | GCG | GGG | TCG | 855 |
| V | V | L | K | D | V | P | P | R | T | T | A | V | G | N | 300 |
| GTG | GTG | TTG | AAA | GAC | GTG | CCG | CCG | CGT | ACG | ACG | GCT | GTT | GGA | AAT | 900 |
| P | A | R | L | L | G | G | K | D | N | P | K | T | H | D | 315 |
| CCG | GCG | AGG | TTG | CTT | GGT | GGT | AAA | GAT | AAT | CCG | AAA | ACG | CAT | GAC | 945 |
| K | I | P | G | L | T | M | D | Q | T | S | H | I | S | E | 330 |
| AAG | ATT | CCT | GGT | TTG | ACT | ATG | GAC | CAG | ACG | TCG | CAT | ATA | TCC | GAG | 990 |
| W | S | D | Y | V | I | | | | | | | | | | 336 |
| TGG | TCG | GAT | TAT | GTA | ATT | TGA | | | | | | | | | 1011 |

Figure 6: Séquence nucléotidique et peptidique d'un gène de l'isoforme SAT 1' (L78443) d'A.

thaliana.

Nucleotide and protein sequences of the SAT 1'
(L78443) isoform from *A. thaliana*

1176

Nucleotide and protein sequences of the SAT1 (U 22964) isoform from *A. thaliana*

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|--|
| M | V | D | L | S | S | F | S | L | L | F | A | F | S | V | S | 16 | |
| ATG | GTG | GAT | CTA | TCT | TCC | TTT | AGC | CTC | CTT | TTT | GCT | TTC | TCC | GTC | TCT | 48 | |
| L | S | F | V | Q | S | K | R | V | C | D | S | S | L | S | S | 32 | |
| CTC | TCT | TTT | GTC | CAA | TCA | AAA | AGA | GTT | TGT | GAT | TCT | TCT | TTA | TCG | TCT | 96 | |
| P | W | R | D | M | N | G | D | E | L | P | F | E | S | G | F | 48 | |
| CCT | TGG | AGA | GAT | ATG | AAT | GGC | GAT | GAG | CTT | CCT | TTC | GAG | AGT | GGT | TTC | 144 | |
| E | V | Y | A | K | G | T | H | K | S | E | F | D | S | N | L | 64 | |
| GAG | GTT | TAC | GCT | AAG | GGA | ACT | CAT | AAG | TCA | GAG | TTT | GAC | TCG | AAT | TTG | 192 | |
| L | D | P | R | S | D | P | I | W | D | A | I | R | E | E | A | 80 | |
| CTT | GAT | CCT | CGT | TCT | GAT | CCT | ATT | TGG | GAT | GCT | ATA | AGA | GAA | GAA | GCT | 240 | |
| K | L | E | A | E | K | E | P | I | L | S | S | F | L | Y | A | 96 | |
| AAA | CTT | GAG | GCA | GAG | AAA | GAG | CCT | ATT | TTG | AGT | AGC | TTC | TTG | TAT | GCT | 288 | |
| G | I | L | A | H | D | C | L | E | Q | A | L | G | F | V | L | 112 | |
| GGT | ATC | TTA | GCA | CAT | GAT | TGT | TTA | GAG | CAA | GCT | TTA | GGG | TTT | GTT | CTA | 336 | |
| A | N | R | L | Q | N | P | T | L | L | A | T | Q | L | L | D | 128 | |
| GCC | AAC | CGT | CTC | CAA | AAC | CCA | ACC | TTG | TTG | GCA | ACA | CAA | CTC | TTG | GAT | 384 | |
| I | P | Y | G | V | M | M | H | D | K | G | I | Q | S | S | I | 144 | |
| ATA | TTT | TAT | GGT | GTT | ATG | ATG | CAT | GAC | AAA | GGT | ATT | CAG | AGT | TCG | ATT | 432 | |
| R | H | D | L | Q | A | F | K | D | R | D | P | A | C | L | S | 160 | |
| CGC | CAT | GAT | CTC | CAG | GCA | TTT | AAA | GAT | CGT | GAT | CCT | GCT | TGT | CTG | TCG | 480 | |
| Y | S | S | A | I | L | H | L | K | G | Y | H | A | L | Q | A | 176 | |
| TAT | AGT | TCT | GCT | ATT | TTA | CAT | CTG | AAG | GGT | TAT | CAT | GCG | TTA | CAA | GCA | 528 | |
| Y | R | V | A | H | K | L | W | N | E | G | R | K | L | L | A | 192 | |
| TAT | AGG | GTT | GCG | CAT | AAA | CTG | TGG | AAT | GAA | GGG | AGG | AAA | CTA | TTA | GCT | 576 | |
| L | A | L | Q | S | R | I | S | E | V | F | G | I | D | I | H | 208 | |
| CTT | GCA | TTG | CAA | AGC | CGA | ATA | AGC | GAG | GTT | TTT | GGC | ATT | GAC | ATA | CAT | 624 | |
| P | A | A | R | I | G | E | G | I | L | L | D | H | G | T | G | 224 | |
| CCA | GCG | GCA | AGA | ATT | GGG | GAG | GGA | ATA | TTG | TTG | GAT | CAT | GGA | ACT | GGA | 672 | |
| V | V | I | G | E | T | A | V | I | G | N | G | V | S | I | L | 240 | |
| GTG | GTC | ATT | GGT | GAG | ACC | GCT | GTG | ATA | GGC | AAC | GGT | GTC | TCG | ATC | TTA | 720 | |
| H | G | V | T | L | G | G | T | G | K | E | T | G | D | R | H | 256 | |
| CAT | GGT | GTG | ACT | TTA | GGA | GGA | ACC | GGA | AAG | GAA | ACT | GGC | GAT | CGC | CAC | 768 | |
| P | K | I | G | E | G | A | L | L | G | A | C | V | T | I | L | 272 | |
| CCA | AAG | ATA | GGT | GAA | GGT | GCA | TTG | CTT | GGA | GCT | TGT | GTG | ACT | ATA | CTT | 816 | |
| G | N | I | S | I | G | A | G | A | M | V | A | A | G | S | L | 288 | |
| GGT | AAC | ATA | AGC | ATA | GGT | GCT | GGA | GCA | ATG | GTA | GCT | GCA | GGT | TCA | CTT | 864 | |
| V | L | K | D | V | P | S | H | S | V | V | A | G | N | P | A | 304 | |
| GTG | TTA | AAA | GAC | GTT | CCT | TCG | CAT | AGT | GTG | GTG | GCT | GGA | AAT | CCT | GCA | 912 | |
| K | L | I | R | V | M | E | E | Q | D | P | S | L | A | M | K | 320 | |
| AAA | CTG | ATC | AGG | GTC | ATG | GAA | GAG | CAA | GAC | CCG | TCT | CTA | GCA | ATG | AAA | 960 | |
| H | D | A | T | K | E | F | F | R | H | V | A | D | G | Y | K | 336 | |
| CAC | GAT | GCT | ACT | AAA | GAG | TTC | TTT | CGA | CAT | GTA | GCT | GAT | GGT | TAC | AAA | 1008 | |
| G | A | Q | S | N | G | P | S | L | S | A | G | D | T | E | K | 352 | |
| GGG | GCA | CAA | TCT | AAC | GGA | CCA | TCA | CTT | TCA | GCA | GGA | GAT | ACA | GAG | AAA | 1056 | |
| G | H | T | N | S | T | S | | | | | | | | | | 359 | |
| GGA | CAC | ACT | AAC | AGC | ACA | TCA | TGA | | | | | | | | | 1104 | |

Figure 8: Sequence nucléotidique et peptidique du m-RNA de la serine acetyltransferase SAT2 putative—chloroplastique d'*Arabidopsis thaliana* (L78444)—

Nucleotide and protein sequences from mRNA of the putative chloroplast serine acetyltransferase SAT2 from *Arabidopsis thaliana* (L78444)

| M | A | C | I | N | G | E | N | R | D | F | S | S | S | S | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ATG | GCT | TGT | ATA | AAC | GGC | GAG | AAT | CGT | GAT | TTT | TCT | TCC | TCG | TCA | 15 | |
| S | L | S | S | L | P | M | I | V | S | R | N | F | S | A | 45 | |
| TCT | TTG | TCT | TCT | CTT | CCA | ATG | ATT | GTC | TCC | CGG | AAC | TTT | TCT | GCC | 30 | 90 |
| R | D | D | G | E | T | G | D | E | F | P | F | E | R | I | 45 | |
| AGA | GAC | GAT | GGA | GAG | ACC | GGT | GAC | GAG | TTT | CCT | TTC | GAG | AGG | ATT | 135 | |
| F | P | V | Y | A | R | G | T | L | N | P | V | A | D | P | 60 | |
| TTC | CCG | GTT | TAC | GCT | AGA | GGA | ACC | CTT | AAT | CCC | GTG | GCC | GAC | CCG | 75 | 180 |
| V | L | L | D | F | T | N | S | S | Y | D | P | I | W | D | | |
| GTT | TTG | CTG | GAT | TTT | ACC | AAT | TCT | AGT | TAT | GAC | CCA | ATT | TGG | GAT | 225 | |
| S | I | R | E | A | K | L | E | A | E | E | E | P | V | | 90 | |
| TCT | ATA | AGA | GAA | GAA | GCT | AAG | CTT | GAG | GCA | GAA | GAG | GAG | CCG | GTT | 270 | |
| L | S | S | F | L | Y | A | S | I | L | S | H | D | C | L | 105 | |
| TTG | AGT | AGC | TTC | TTG | TAT | GCT | AGT | ATC | TTG | TCG | CAT | GAC | TGT | TTA | 315 | |
| E | Q | A | L | S | F | V | L | A | N | R | L | Q | N | P | 120 | |
| GAG | CAA | GCA | TTG | AGT | TTT | GTT | CTA | GCT | AAC | CGT | CTC | CAA | AAC | CCT | 360 | |
| T | L | L | A | T | Q | L | M | D | I | F | C | N | V | M | 135 | |
| ACC | TTG | TTG | GCA | ACT | CAG | CTT | ATG | GAT | ATA | TTT | TGC | AAC | GTT | ATG | 405 | |
| V | H | D | R | G | I | Q | S | S | I | R | L | D | V | Q | 150 | |
| GTA | CAT | GAC | AGA | GGT | ATT | CAA | AGC | TCG | ATT | CGT | CTT | GAT | GTT | CAG | 450 | |
| A | F | K | D | R | D | P | A | C | L | S | Y | S | S | A | 165 | |
| GCA | TTT | AAA | GAC | AGA | GAT | CCT | GCT | TGT | CTA | TCG | TAT | AGT | TCG | GCT | 495 | |
| I | L | H | L | K | G | Y | L | A | L | Q | A | Y | R | V | 180 | |
| ATT | TTA | CAT | CTG | AAG | GGC | TAT | CTT | GCA | CTG | CAG | GCG | TAT | AGA | GTA | 540 | |
| A | H | K | L | W | K | Q | G | R | K | L | L | A | L | A | 195 | |
| GCA | CAT | AAG | TTG | TGG | AAG | CAA | GGA | AGA | AAA | CTA | TTA | GCA | TTG | GCA | 585 | |
| L | Q | S | R | V | S | E | V | R | T | A | V | I | G | D | 210 | |
| CTG | CAA | AGC | CGA | GTA | AGC | GAG | GTA | AGA | ACT | GCT | GTG | ATA | GGC | GAC | 630 | |
| R | V | S | I | L | H | G | V | T | L | G | G | T | G | K | 225 | |
| CGT | GTC | TCA | ATT | TTG | CAT | GGT | GTG | ACA | TTA | GGA | GGA | ACT | GGG | AAA | 675 | |
| E | T | G | D | R | H | P | N | I | G | D | G | A | L | L | 240 | |
| GAA | ACC | GGT | GAC | CGC | CAT | CCA | AAT | ATA | GGC | GAC | GGT | GCT | CTT | CTT | 720 | |
| G | A | C | V | T | I | L | G | N | I | K | I | G | A | G | 255 | |
| GGA | GCA | TGT | GTG | ACT | ATA | CTT | GGT | AAC | ATT | AAG | ATA | GGC | GCT | GGA | 765 | |
| A | M | V | A | A | G | S | L | V | L | K | D | V | P | S | 270 | |
| GCA | ATG | GTA | GCT | GCT | GGT | TCG | CTT | GTG | TTA | AAG | GAT | GTT | CCT | TCG | 810 | |
| H | S | M | V | A | G | N | P | A | K | L | I | G | F | V | 285 | |
| CAT | AGC | ATG | GTG | GCT | GGA | AAT | CCA | GCA | AAA | CTC | ATC | GGG | TTT | GTT | 855 | |
| D | E | Q | D | P | S | M | T | M | E | H | G | E | S | | 299 | |
| GAT | GAG | CAA | GAT | CCA | TCT | ATG | ACA | ATG | GAG | CAT | GGT | GAG | TCT | TGA | 900 | |

Figure 9: Sequence-nucléotidique et en acides aminés du mRNA de la SAT4-putative-chloroplastique d'*Arabidopsis thaliana*.

Nucleotide and amino acid sequences from mRNA
of the putative chloroplast SAT 4 from *Arabidopsis thaliana*

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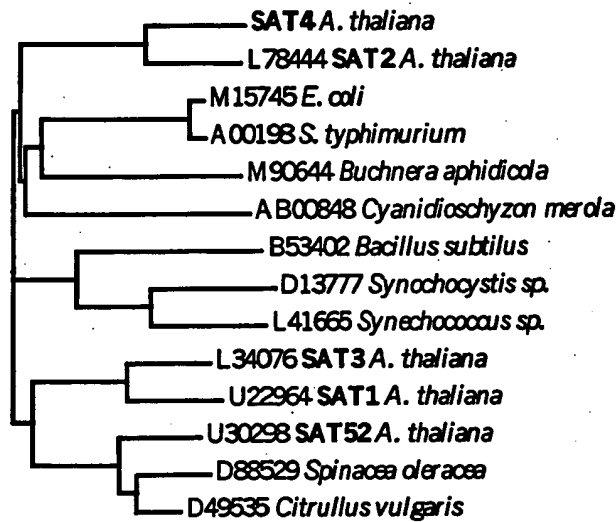


Figure 10: ~~Dendrogramme des serine acétyltransférases issues de plusieurs organismes.~~
Sequence comparison of serine acetyltransferases from *A. thaliana* and other organisms

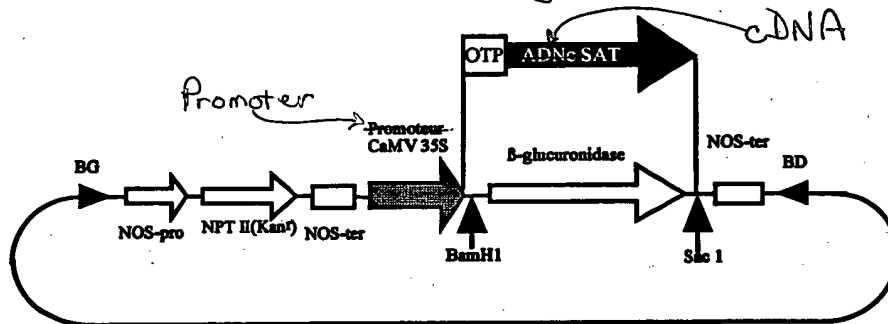


Figure 11: ~~Procédure de clonage de l'OTP/Serine acétyltransférase SAT3 ou SAT~~
Process for insertion of OTP/serine acetyltransferase SAT3 or SAT
or cysteine - insensitive SAT such as truncated SAT 1 in the
(insensible à la cystéine, par exemple SAT1 tronqué) dans le vecteur pBI121.
vector pBI121

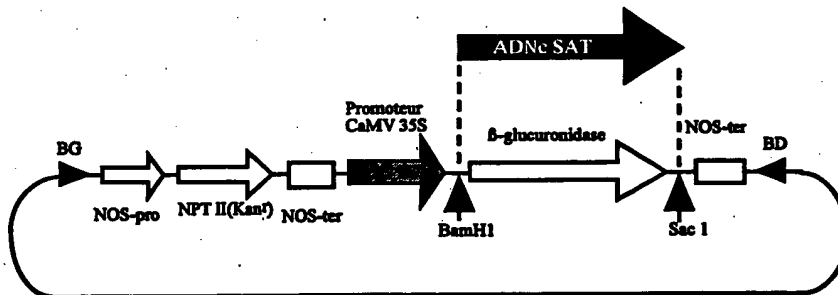


Figure 12: ~~Procédure de clonage de la Serine acétyltransférase SAT1'; SAT1; SAT2;~~
SAT3, SAT3'; SAT4, ou toutes SATs dans le vecteur pBI121.

Process for insertion of serine acetyltransferase SAT1',
SAT1, SAT2, SAT3, SAT3', SAT4 or any SAT
in the vector pBI121